Review of: "Targeting Cancer Cell Signaling Using Precision Oncology Towards a Holistic Approach to Cancer Therapeutics"

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Potential competing interests: No potential competing interests to declare.

The topic of review by M. Kumar is overall of interest, however requires careful revision to render it appealing for publication.

1. The introduction is too long, providing a lenghty historical excursus of the resercah an dfight of cancer. This is not needed. It should be re-written, with focus on molecular fetaures of cancer and their targeting.
2. Table 1.: teh title needs to be changed sinec the listed markers are not biomarkers, but molecules expressed in tumor cells with over-expression in cancer stem cells.
3. It is not clear in paraghpgh 3. the link between cancer stem cells an d immune infiltration of tumors. The author jumped from one topic to the other without any logival connection.
4. the long list of mutated genes decsribed in tumors should be categorized by functions and moreover type of tumors. It will help to add a Table with the decsriptions of the mutations and the associated type of tumors.
5. Overall a lenghty decsription of molecular alterations/mutations in cancer cells is providing, however the connection with actionable drugs is missing. Moreover, the decsribed molecular pathways are commonly aberrant in multiple tumor types. It is not clear their relevance for the precision medicine. This point should be made clear, providing also examples.
6. paragraph 6. the sentence “It has been widely applied in precision medicine-based healthcare practices and is found to be greatly useful in medical oncology practice” is not correct. the usage of AI to precision medicine is still at the birth phase and its translation in therapeutic treatments is still under development.
7. The part dedicated to existing therapeutic intervention is missing the appropriate description of immunotherapy, including the rationale and the most recent achievements.
8. The author decsribe the role of antagonist CTLA-4 mAb as immunotherapy approach, but do not decsribe PD-1/PD-L1 signaling and the blockade with mAbs leading to significant improvemnet of overall survival in pateints with different types of cancer. Since the blockade of CTL:A-4, several immune checkpoint blockade agents have bene developed, that should be decsribed. Moreover, the combination of immunotherapeutic approaches as well as the usgae of the mutanome for the developmnet of pateints' tailored cancer vaccines should be decsribed. This represent a good fit for the topic of precision medicine.
9. Overall, the topic of the review is of interets, however the test results in a lenghhty and generic decsription. The author

should focus the manuscript to the scope of teh review, a sin the title and in the abstract, and limit the description of molecular pathways, genomic platforms and therapeutic intervention that meet the scope of the development annd progress of precision medicine for cancer patients.